

REMARKS

Applicant thanks the Examiner for the careful review of this application. Claims 1, 2, 8, 10, 13, 15-18, 20-22, 25, 26-28 and 31 were amended to clarify aspects of the invention. New claim 35 was introduced for consideration. No new matter was added. Therefore, claims 1-35 are currently pending in this application.

CLAIM OBJECTION

Claim 21 was objected to as being dependent on claim 22. The Examiner's suggested amendment was adopted to change the dependency of claim 21 to claim 20. Applicant respectfully requests the withdrawal of the Examiner's objection of claim 21.

REJECTIONS UNDER 35 U.S.C. § 102(a)

Claims 1 and 20 were rejected under 35 U.S.C. § 102(a) as being anticipated by the admitted prior art disclosed in the specification of the present invention, specifically figure 1. Applicant respectfully traverses the rejection for the following reasons.

The claimed inventions of independent claims 1 and 20 are directed to an apparatus and method for delaying a digital audio signal wherein the input device is operative to detect a format of the digital audio signal and provide a format signal. A time delay is then provided to the digital audio format, the duration of which is related to the detected format of the digital audio signal. If a new format is later detected, the time delay is changed accordingly. In marked contrast, the subject matter of figure 1 discloses a system that requires separate hardware arrangements for each type of incoming audio format. Advantageously, the present invention does not suffer from this deficiency as it adapts by sensing the type of audio format and introducing a correct delay.

Withdrawal of the rejections of claims 1 and 20 under 35 U.S.C. § 102(a) is respectfully requested. Applicant respectfully traverses the rejections of the original claims 1 and 20 as well as newly amended claims 1 and 20.

REJECTIONS UNDER 35 U.S.C. § 102(e)

Claims 1-7, 20-21 and 23-25 were rejected under 35 U.S.C. § 102(e) as being anticipated by Sueyoshi (U.S. Patent No. 6,233,562).

Sueyoshi apparently discloses an audio decoding device for decoding coded audio information with multiple channels that includes a coded information memory section for storing the coded audio information. An information transmission section is used for reading the coded audio information stored at an arbitrary position in the coded information memory section. Also included is an audio decoding section for decoding the coded audio information read by the information transmission section and outputting the resultant audio information in accordance with a time axis.

The claimed inventions of independent claims 1 and 20 are directed to an apparatus and method for delaying a digital audio signal wherein the input device is operative to detect a format of the digital audio signal and provide a format signal. A time delay is then provided to the digital audio format, the duration of which is related to the detected format of the digital audio signal. If a new format is later detected, the time delay is changed accordingly. Sueyoshi's disclosure, on the other hand, is configured for specific audio formats. For example, Sueyoshi's figure 2 details how various sound channels are encoded in an MPEG-2 format. Sueyoshi knows where to look for the channels and then optimizes its memory allocation to efficiently handle the data, which happens to include when to start playing a particular channel. In the case of an MPEG-1 format, Sueyoshi would need to be configured to properly process that type of data stream. The present invention does not suffer from this deficiency.

Claims 2-6, 21 and 23-25 depend directly or indirectly from independent claims 1 and 20 and are therefore allowable for at least the same reasons as set forth for independent claims 1 and 20. Withdrawal of the rejections of 1-7, 20-21 and 23-25 is respectfully requested. Applicant reserves the right to swear behind the reference used in the under 35 U.S.C. § 102(e) rejection if necessary but does not currently believe it is necessary.

REJECTIONS UNDER 35 U.S.C. § 103(a)

Claims 8-19, 22 and 25-34 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sueyoshi (U.S. Patent No. 6,233,562) in view of Kuwaoka (U.S. Patent No. 6,449,519).

Sueyoshi was previously summarized.

Kuwaoka apparently discloses a harmonic generation circuit that compares audio data supplied from the outside every sample, detects a top-peak and an under-peak of the audio data on the basis of the comparison outputs, and detects patterns of the comparison output between continuous top-peak and under-peak. The harmonic generation circuit possibly forms an addition-subtraction data corresponding to harmonic depending on the patterns, and supplies the addition-subtraction data to an adder at a timing depending on the patterns. The adder performs an addition-subtraction process for adding/subtracting the addition-subtraction data formed by the harmonic generation circuit to/from the audio data supplied from the outside. In this manner, a harmonic component can possibly be added to original audio data, and audio data having a wide frequency band may perhaps be formed.

Since claims 8-19, 22 and 25-34 depend directly or indirectly from independent claims 1 and 20, Applicant respectfully submits that Sueyoshi does not include claims 1 and 20 limitations. More specifically, The claimed inventions of independent claims 1 and 20 are directed to an apparatus and method for delaying a digital audio signal wherein the input device is operative to detect a format of the digital audio signal and provide a format signal. A time delay is then provided to the digital audio format, the duration of which is related to the detected format of the digital audio signal. If a new format is later detected, the time delay is changed accordingly. Sueyoshi's disclosure, on the other hand, is configured for specific audio formats. For example, Sueyoshi's figure 2 details how various sound channels are encoded in an MPEG-2 format. Sueyoshi knows where to look for the channels and then optimizes its memory allocation to efficiently handle the data, which happens to include when to start playing a particular channel. In the case of an MPEG-1 format, Sueyoshi would need to be configured to properly process that type of data stream. The present invention does not suffer from this deficiency.

Withdrawal of the rejections of claims 8-19, 22 and 25-34 is therefore respectfully requested.

The amendment was made to expedite the prosecution of this application. Applicant respectfully traverses the rejections of the amended claims and reserves the right to re-introduce them and claims of an equivalent scope in a continuation application. If the undersigned agent has overlooked a relevant teaching in any of the references, the Examiner is requested to point out specifically where such teaching may be found.

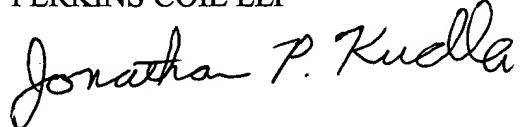
CONCLUSION

Applicant believes that all pending claims are allowable and a Notice of Allowance is respectfully requested.

If the Examiner believes that a conference would be of value in expediting the prosecution of this application, he is cordially invited to telephone the undersigned counsel at the number set out below.

Respectfully submitted,

PERKINS COIE LLP



Jonathan P. Kudla
Reg. No. 47,724

Customer No. 22918
Perkins Coie LLP
P.O. Box 2168
Menlo Park, CA 94026
Telephone: (650) 838-4300